

**CITY OF MOUNTAIN VIEW  
MEMORANDUM**

DATE: May 27, 2010

TO: Council Environmental Sustainability Committee

FROM: Lori Topley, Solid Waste Program Manager

SUBJECT: OVERVIEW OF CURRENT ENVIRONMENTAL SUSTAINABILITY  
PROJECTS

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This memorandum provides the Council Environmental Sustainability Committee (CESC) with an update regarding the status of the various environmental sustainability-related projects currently under way in the City of Mountain View.

City staff is pursuing a wide variety of environmental sustainability-related projects (see attachment) based on the City Council-approved Environmental Sustainability Program (September 2007) and Environmental Sustainability Action Plan (ESAP) (March 2009). A few additional projects, such as those funded by Federal Energy Efficiency and Conservation Block Grant moneys (e.g., Community Energy Audits), have been added as the result of opportunities that have arisen since the ESAP was adopted last year.

The attached table provides a high-level summary of each of the projects currently under way. The table illustrates the breadth of projects staff is currently engaged in and the level of resources dedicated to sustainability-related projects. Staff will be available at the June 2, 2010 CESC meeting to provide more information about the status of projects currently under way and/or respond to other CESC member questions.

Staff anticipates additional sustainability-related projects will arise in the future from the City's involvement in regional partnerships such as JointVenture:Silicon Valley as well as from the adoption of the Governmental Operations Climate Action and the General Plan Greenhouse Gas Reduction Plans currently under development. Prior to


Council Environmental Sustainability Committee

May 27, 2010

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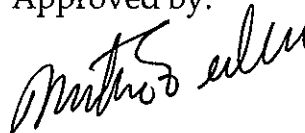
starting work on any new sustainability initiatives, staff will seek Council authorization to move ahead based on available staffing and funding resources.

Prepared by:



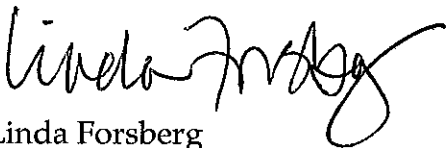
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944-05-14-10M-E^

Attachment

## Environmental Sustainability Program Projects – As of May 14, 2010

	Project	Source	Lead Dept	Scope City Comm	Level of Effort Required	Level of Completion	Estimated Completion Date
1	CaliforniaFIRST (AB 811) – Financing of energy retrofit projects for residents and businesses	ESAP 09/10 CIP 10-33	PW/ES	✓	Medium	30%	Program Begins Fall 2010
2	Retrofit Bay Area (ABAG Grant) – Marketing of residential audits	Opportunity	PW/ES	✓	Low	10%	Program Begins Fall 2010
3	Community Residential Energy Audits (EECBGrant)	Opportunity	PW/ES	✓	High	10%	Program Begins Fall 2010
4	EECBGrant Administration	Opportunity	PW/ES	✓	High	20%	Winter 2013
5	Renewable Energy Projects – Solar Power Purchase Agreement	ES Program CIP 10-33	PW/ES	✓	High	30%	Fall 2010
6	Renewable Energy Projects – Possible AB 2466 Facility	ESAP 09/10 CIP 10-32	PW/ES	✓	High	10%	TBD
7	Green Mountain View Liaison	ESAP 08/09 CIP 10-34	PW/ES	✓	Low	Ongoing	Ongoing
8	Green Building Training of Public Works and Community Development Staff	ESAP 09/10	PW/ES	✓	Low	20%	Summer 2010
9	Sustainability Event Tabling	ESAP 08/09	PW/ES	✓	Low	Ongoing	Ongoing
10	Internal City Green Team Activities	Opportunity	PW/ES	✓	Medium	Ongoing	Ongoing
11	Develop a Government Operations Climate Action Plan	ES Program	PW/ES	✓	High	0	TBD

	Project	Source	Lead Dept	Scope City Comm	Level of Effort Required	Level of Completion	Estimated Completion Date
12	Perform 2010 Government Ops GHG Inventory	Follows from ESAP	PW/ES	✓	High	0	Summer 2011
13	2012 Community GHG Inventory	Follows from ESAP	PW/ES	✓	Medium	0	Summer 2013
14	General Plan Greenhouse Gas Reduction Plan (Climate Action Plan)	ESAP	CDD	✓	High	30%	Winter 2011
15	Green Building Ordinance	ESAP 09/10 CIP 10-36	CDD	✓	Medium	40%	Fall 2010
16	Environmentally Preferable Purchasing Policy	ES Program	FASD	✓	Medium	70%	Fall 2010
17	Zero Waste Plan	ESAP 09/10 CIP 10-35	PW/SW	✓	High	20%	Winter 2011
18	Recycling in Public Areas – place stickers on all public trash cans	ESAP 08/09	PW/SW	✓	Low	70%	Summer 2010
19	Single-Use Bag Ordinance	ESAP 08/09	PW/SW	✓	High	30%	TBD
20	Single-Use Bags – BYOB Campaign w/Green Mountain View	Opportunity	PW/SW	✓	Medium	20%	Fall/Winter 2011
21	Free Reusable Shopping Bags to Residents	ES Program	PW/SW	✓	Low	20%	TBD
22	Styrofoam Take-Out Container Ban	ESAP 10/11	PW/SW	✓	High	0	TBD
23	Tennis Lighting Retrofit (an EECB Grant Project)	Opportunity	PW/Fac	✓	Medium	20%	Fall 2010
24	Library Greening	ESAP 09/10	PW/Fac	✓	Medium	40%	TBD

	Project	Source	Lead Dept	Scope		Level of Effort Required	Level of Completion	Estimated Completion Date
				City	Comm			
25	Next Building Greening	ESAP 10/11 (Future CIP)	PW/Fac	✓		Medium	0	TBD
26	Participate in ClimateSmart Program	ES Program	PW/Fac	✓		Low	0	TBD
27	City Facility Energy Audits	ES Program	PW/Fac	✓		Medium	Ongoing	Ongoing
28	Shoreline Landfill Microturbines Replacement (an EECBGrant Project)	Opportunity	PW/PS	✓		High	10%	TBD
29	Landscape Water Conservation Ordinance	ESAP 09/10	PW/PS		✓	High	90%	July 2010
30	Pedestrian Master Plan	ESAP 09/10	PW/Tran		✓	Medium	40%	Fall 2011
31	Bicycle Boulevard	ESAP 09/10 CIP 10-37	PW/Tran		✓	Low	10%	Winter 2011
32	Automated Bicycle Rentals	ESAP 09/10	PW/Tran		✓	Medium	40%	TBD
33	Employee Carpool/Walk/Bike Incentive Program	ES Program	FASD	✓		Low	10%	TBD
34	Inventory City Practices and Recommend Improvements	ES Program	PW/ES	✓			100%	Complete
35	Adopt CO2e Emission Goals – Government Operations and Community	ESAP 08/09	PW/ES	✓	✓		100%	Complete
36	Redesign Water Billing Format	ESAP 08/09	FASD		✓		100%	Complete
37	Recruit and Train Water Conservation Advocates	ESAP 08/09	PW/PS		✓		100%	Complete

	Project	Source	Lead Dept	Scope City Comm	Level of Effort Required	Level of Completion	Estimated Completion Date
38	Establish LEED Silver as Standard for City Buildings	ESAP 08/09	PW/ES	✓		100%	Complete
39	Create Environmental Displays at Library	ESAP 09/10	Lib		✓	100%	Complete
40	Provide additional Arbor Day Trees	ESAP 09/10	CSD		✓	100%	Complete
41	Community Bus Route	ESAP 08/09	PW/Tran		✓	100%	Revised Route begins July 2011

Source Key: ESAP = Environmental Sustainability Action Plan adopted by Council March 2009.  
ES Program = Environmental Sustainability Program adopted by Council September 2007.  
Opportunity = A project that was pursued based on an opportunity presented to City that was in keeping with goals of the program

Lead Dept. Key: PW/ES = Public Works Department, Environmental Sustainability Section  
CDD = Community Development Department  
FASD = Finance and Administrative Services Department  
PW/SW = Public Works Department, Solid Waste Section  
PW/Fac = Public Works Department, Facilities Section  
PW/PS = Public Works Department, Public Services Section  
PW/Tran = Public Works Department, Transportation Section  
Lib = Library  
CSD = Community Services Department

**CITY OF MOUNTAIN VIEW  
MEMORANDUM**

DATE: May 27, 2010

TO: Council Environmental Sustainability Committee

FROM: Stephen P. Attinger, Environmental Sustainability Coordinator

SUBJECT: PROPOSED REVISIONS TO COMMUNITY ENERGY AUDIT AND  
UPGRADE PROGRAM

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**RECOMMENDATION**

Approve staff's revised approach to conducting residential energy audits and upgrades as outlined in this report.

**BACKGROUND AND ANALYSIS**

In May 2009, the City Council approved a proposed spending plan for the \$719,000 in Federal Energy Efficiency and Conservation Block Grant funds (ARRA stimulus funds) the City would be receiving. The proposed spending plan included the following activities:

1. Retrofitting Rengstorff Park and Cuesta Park tennis court lights with energy-efficient bulbs (\$76,000).
2. Upgrading the Shoreline at Mountain View microturbines (\$300,000).
3. Providing free or subsidized residential energy audits and simple device installations to Mountain View residents (\$343,000).

Both the tennis court lighting and microturbine projects are currently under way. Staff is testing various high-efficiency lighting products for the tennis court project to determine which product(s) provide the best lighting results and reduced energy use. The Public Services Division is evaluating the best technology and approach for replacing the microturbines.

### **Residential Energy Audit and Upgrade Program**

The Residential Energy Audit and Upgrade Program initially presented to Council included the following elements:

- Conducting basic (Tier 1) audits of single- and multi-family homes (see Attachment 1).
- Installing simple devices (e.g., compact fluorescent lights (CFLs) and smart powerstrips) while at residences conducting audits.
- Obtaining commitments from audit participants to adopt more energy-saving behaviors.

Staff anticipated hiring one firm (either for-profit or nonprofit) to design and implement the program.

However, based on a review of current Best Practices among other cities and counties and recent developments at the State and Federal levels, staff now recommends changes to the approach approved by the Council.

### **Revised Program Scope/Focus**

Current Best Practices suggest that the primary focus of the program should be on Tier 2 and Tier 3 upgrades/retrofits, rather than on the free/subsidized home audits and Tier 1 instant upgrades previously proposed. Several research studies indicate that residents who have a Tier 1 audit performed are only 5 percent to 10 percent likely to perform any subsequent upgrades, while residents who have an advanced (Tier 2 or Tier 3) audit performed are 50 percent likely to perform upgrades. Additionally, Tier 2 and Tier 3 upgrades will result in greater reductions in energy use and greenhouse gas emissions.

Also, based on the advice received from other agencies with audit/upgrade programs already in place, staff is leaning away from the City paying a resident's audit cost up front. Instead, any financial assistance or incentives would be tied to a resident or property owner actually completing an upgrade.

To maximize the number of Tier 2 or Tier 3 upgrades conducted in the City's large multi-family community, staff plans to focus on engaging with property owners since they would make decisions about performing Tier 2/3 retrofits on their buildings. Staff



may still engage renters directly about installing Tier 1 devices, such as CFLs and smart powerstrips, but this will be emphasized less than originally planned. Alameda County's StopWaste.org is developing recommended guidelines and contractor qualifications for audits and Tier 2/3 retrofits in multi-family units. These guidelines are expected to be completed by midsummer and will be available to jurisdictions, including the City of Mountain View, to use in their own local programs. Also, StopWaste.org will be offering workforce training in the fall and, by the end of 2010, software for property managers to evaluate which building upgrades to make. Property managers will have to pay a fee to use the software.

Staff had initially recommended hiring one firm (either for-profit or nonprofit) to administer all aspects of the audit and upgrade program. However, given the proposed new scope and focus of the program, staff now believes it is unlikely that a single firm will possess the full breadth and depth of knowledge, skills and expertise to administer the program. Consequently, staff now recommends that different firms be hired for the project design/management and advertising/outreach components of the program. Staff will encourage firms interested in assisting the City to team up with other firms with complementary skills/expertise to submit a single proposal to the City.

Also, based on advice received from the California Home Energy Retrofit Coordinating Committee (HERCC) and other energy efficiency experts, staff now recommends allowing residents participating in the audit/upgrade program to choose an auditor and upgrade contractor from a list of "approved" vendors, rather than requiring them to use a single contractor selected by the City. The Association of Bay Area Governments (ABAG) is currently developing a list of "approved" vendors, and the list should be available this summer or fall.

A summary of staff's proposed changes to the community energy audit and upgrade program and a list of retrofits by tier is shown in Attachment 1. A flow chart depicting staff's current concept for the program and how a resident might be able to take advantage of financial incentives to offset some of the costs associated with their energy efficiency upgrades is shown in Attachment 2.

It should be noted that focusing on Tier 2 and Tier 3 upgrades will likely result in greater energy and greenhouse gas savings. However, staff is not able to characterize the amount of the savings at this time. Additionally, staff does not yet know how many Tier 2 and Tier 3 home audits and upgrades can be completed with the allocated \$343,000. These unknowns will be resolved and specified in the consultant contract forwarded to Council for approval in the fall.

### Financial Assistance

Residents and property owners wishing to undertake Tier 2 and Tier 3 upgrades will have the following programs available to help them offset some of the costs of the upgrades.

#### Rebate Programs

Both Pacific Gas and Electric (PG&E) and the Federal Government are in the final stages of designing residential energy efficiency rebate programs. The PG&E rebate program is expected to go into effect in September or October 2010.

Legislation pertaining to the Federal rebate program (HOME STAR) was passed by the House of Representatives and is awaiting approval by the Senate. The HOME STAR program will offer financial incentives for residential energy-efficiency upgrades (e.g., installing attic insulation, weather stripping windows/doors and purchasing high-efficiency appliances). It is anticipated that program participants will save \$200 to \$500 per year in energy costs.

Both the PG&E and Federal programs will offer rebates for either prescriptive (e.g., retrofitting five specified items) or performance-based (e.g., attaining a 20 percent energy efficiency improvement overall) home upgrades, with performance-based rebate amounts generally being larger than prescriptive.

For home and business water efficiency upgrades, the Santa Clara Valley Water District currently offers rebates for items such as washing machines, water softeners, toilets and urinals, landscaping, irrigation equipment and submeters.

#### Financing Programs

In addition to the rebates noted above, residents will also be able to apply for financing for more expensive home energy and water upgrades. On January 12, 2010, the Council approved the City's participation in the CaliforniaFIRST home upgrade financing program. CaliforniaFIRST will enable residential and commercial property owners to obtain loans to finance energy efficiency, water efficiency and renewable energy projects. The loan is paid back via the property tax bill over a period of up to 20 years. The minimum loan amount is \$5,000, and the program will likely begin accepting applications in October.

### Outreach/Advertising Campaigns

There are currently two advertising/outreach programs being developed that will complement the local outreach performed as part of the City's residential energy upgrade program.

- The State of California is developing a State-wide advertising campaign around "smart energy use" in the home. This campaign is expected to be rolled out over several months starting this summer.
- Santa Clara County will be kicking off a home upgrade outreach campaign for residents and multi-family property owners late this summer or early fall.

The City plans to notify residents about its energy audit and upgrade program through multiple channels, such as the City's newsletter (*The View*), the *Mountain View Voice* newspaper, contacts with neighborhood and homeowner associations and other local groups. Additionally, staff will develop and post information about the program and the financial incentives available to participants on the City's web site.

### CONCLUSION/NEXT STEPS

Staff requests feedback from the Council Environmental Sustainability Committee (Committee) regarding the proposed revisions to the City's community energy audit and upgrade program. If endorsed by the Committee, the program would be implemented according to the following schedule.

Date	Action
Mid- to Late June	Distribute RFP for residential audit program
Mid- to Late July	Receive responses to RFP
Mid- to Late August	Staff identifies recommended consultant(s)
Mid- to Late September	Present contract to Council
December	Roll out program to Mountain View residents

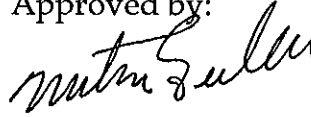
**PUBLIC NOTICING**—Agenda posting.

Prepared by:



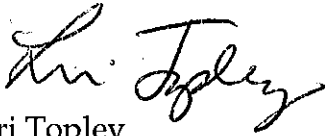
Stephen P. Attinger  
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Approved by:



Michael A. Fuller  
Public Works Director

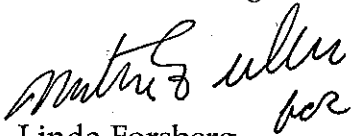
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916-05-21-10M-E^

- Attachments:
1. Proposed Changes to Community Energy Audit/Upgrade Program and Retrofits by Tier
  2. City of Mountain View Community Home Upgrade Program Flow Chart

## Proposed Changes to Community Energy Audit/Upgrade Program

Item	Original Plan	Revised Plan
Audit/Retrofit Type	<ul style="list-style-type: none"> <li>Single-family: solely focused on Tier 1</li> <li>Multi-family: focused on the occupant/tenant</li> </ul>	<ul style="list-style-type: none"> <li>Single-family: mostly focused on Tier 2 &amp; 3, but with some attention to Tier 1</li> <li>Multi-family: focused on the property owner/landlord</li> </ul>
Scope of Consultant Services	One firm to design and brand/advertise the program and conduct the audits.	A lead firm designs/manages the program, but outsources the branding/advertising to other vendors who specialize in this area. Allow residents to select a contractor to perform the audits and retrofits from an "ABAG-approved" list.

## Retrofits by Tier — Sample List

Tier 1	Tier 2	Tier 3
Compact Fluorescent Lights (CFLs)	Attic insulation	HERS II audit – looks at house as a "system"
Programmable thermostats	Wall insulation	All Tier 2 retrofits deemed cost effective/applicable
Smart powerstrips	Floor insulation	Insulation defects
Old appliance replacement (e.g. refrigerator, dishwasher, washing machine, etc.)	Old appliance replacement (e.g. A/C, furnace, water heater, etc.)	A/C and furnace installation defects
	Duct sealing or replacement	Duct leakage
	Radiant barriers	Thermal barrier defects
	Cool roofs	Solar PV system
	Energy efficient windows	Solar hot water system
	Building envelope sealing	Combustion safety hazards

# City of Mountain View Community Home Upgrade Program

## -- Possible Scenario --

